

Appendix 4-4

Cultural Resource Report, Sherman Shelter

CULTURAL RESOURCE REPORT

81-1

Crandall Canyon (Genwall Coal Company) Road Proposal

Manti-LaSal National Forest

INTRODUCTION

On December 17, 1980, an investigation of archeological site ML-2200 (42EM722, or Sherman Shelter) was conducted by Les Wikle, Monticello District Archeologist, and Walt Nowak, of the Price District, for the purpose of assessing scientific potential of the site as well as possible impacts on it by a proposed road upgrading by Genwall Coal Company.

Two previous investigations had been conducted on the existing road and its immediate environs. The first (Gillio 1975) described the site and noted a projectile point fragment in the roadway, probably washed down the slope from the site above. The second report (Howell 1980) expanded on the earlier work, surveying a considerable area around the proposed mine facility, as well as covering the entire canyon bottom where the proposed access road is located.

As a result of previously unanswered questions in the reports and new project proposals, the Price Ranger District requested a reanalysis of the situation. The result was the December visit and the present report.

PREHISTORY OF THE AREA

Although a few isolated, uncontrolled finds may date to an earlier time, people of the Archaic period are apparently the first to use this general area of Utah. The Archaic period dates approximately from 6500 B.C. to A.D. 200. Subsistence techniques were basically of a small game hunting and wild plant gathering nature. Some camping and habitation was done at open sites, but our best Archaic information comes from rockshelters and caves where preservation is better.

The Fremont culture dating between A.D. 450-1250 probably was present at Sherman Shelter for at least a short time during this period. This was a time of a more settled life, corn agriculture, and some trade with contemporaneous Anasazis to the south (Madsen and Lindsay 1977).

SITE ENVIRONMENT

Sherman Shelter is located near the junction of Crandall Canyon and Huntington Canyon at 7460 feet elevation. The alcove faces south, being on the north side of the east-west running Crandall Canyon. The existing dirt road is 25-30 meters to the south, down a steep slope which varies from about 18% to 35%.

The canyon is very narrow and steep, limiting the options available for road improvement and relocation. Pinyon and juniper are in the immediate site area, although aspen and coniferous trees are also found in the nearby area. Crandall Creek provides a permanent water supply.

SITE TESTING

Due to time and work load constrictions, only very limited testing could be done. Two small test pits were dug on the west side of the site on the edge of the extensive pothunting area (See site map).

Surface pottery had been reported by earlier investigations, but none was found on this trip. Much bone material was scattered on the surface, but almost all of it was of a very fragmentary nature. The pieces intact enough for identification were not human bone. No surface collection was taken.

Test Pit I was dug towards the southwest corner of the site, near the expected edge of the cultural deposits. The pit was 0.3 meters square and was dug to a depth of one meter. The first 0.1 meter consisted of soil from a large pothole to the north, under which was the recent sod level. Under this was a deep deposit of yellowish sandy loam with occasional charcoal bits.

Artifactual material from Test Pit I consisted of two bone fragments and a piece of glass at the recent sod level (under the pot hole dump), a bone fragment and small piece of wood at the contact of the sod level and the yellowish sandy loam, and two bone fragments and a sherd between the yellowish level and the darker level below. The sherd is a body fragment from a very roughly formed corrugated vessel. Many confusions surround ceramic typology in the general Fremont area (Madsen and Lindsay 1977:52). For this reason, the sherd has not yet been classed pending later laboratory analysis. However, its general style and material relate to a sherd found at Backhoe Village (Madsen and Lindsay 1977:56) which dated to about A.D. 900-1100, which relates well in time to Mancos Corrugated in the Anasazi area.

Test Pit II was dug not long before darkness came, and so was not deep. Its purpose was to assess the depth of cultural material existing below the potted depths. In this it was not too successful, as time allowed going only a few tenths of a meter below that level. Six bone fragments and a corn cob were recovered from this test pit.

No pollen or soil samples were collected in this limited test, and the amount of charcoal present did not allow for collecting a sample for C-14 dating. No building stone material was seen either on the surface or in the test pits. The bone fragments seen on the surface and found in the test pits were apparently of animal origin as far as field analysis could identify.

CULTURAL CONCLUSIONS

Although no diagnostic Archaic materials were found in the limited depth test pits probably such a time period is represented at Sherman Shelter, based on nearby isolated finds of Archaic-like projectile point fragments. Such a fragment found just downstream from the site (Howell 1980) has morphological similarities to either Pinto or Humbolt points according to Ho'ner's (1979) typology.

The corn cob and corrugated sherd indicate a later Fremont occupation. There were no materials to indicate a post-Fremont, non-Anglo occupation or use.

The alcove, being small, shallow, and having some problems with shelter from inclement weather, probably had limited, seasonal use. The small amount of trash on the slopes would support this.

Notwithstanding the relative smallness of the site, coupled with the rather severe existing pothunting, a great deal of important scientific information exists on the site and needs to be protected or extracted through careful excavation. The presumed subsistence base of the adjacent Sevier Culture has recently been questioned (Madsen and Lindsay 1977:87-89) and a reanalysis of the Fremont culture on this same basis would be warranted. Sherman Shelter can aid us in providing new data on this subject. Also needed is more information that will help us find the relationships between small "field house" sites, larger villages, and alcoves in Fremont times.

ALTERNATIVES

Six major alternatives are considered here that span the whole range of possible options. Each alternative is described by approximate cost, effect on the site, viability, and procedures needed and completed (See Table 1).

Alternative A: Reroute the road that is now in the site area to the other side of the creek.

Alternative B: Move the present roadway slightly to the south, avoiding extensive cut and fill in the bank, but requiring some rerouting of the creek. Fence the site.

Alternative C: Keep the road where it is, with cut and fill where necessary. Fence the site.

Alternative D: Move the road upslope toward the site to avoid problems with the existing creek bank. Fence the site.

Alternative E: Completely salvage the site, allowing any road option to be completed without any effects on the site.

Alternative F: Allow any road proposal to go through without worrying about complete destruction of the site through natural causes or illegal digging.

Some concern has been voiced by some Forest Service personnel regarding soil stability in the area: there is a worry that any cutting into the steep slope near the site would lead to heavy erosion that would ultimately destroy the site. This is not an item that can be directly addressed in an archeology report, though it of course would have an effect on the site itself unless Alternative F were chosen. The possible erosion problem is one which must be addressed by the appropriate soil scientists. Genwall Coal Company has proposed putting in five or more study trenches for soil stability. Unless Alternative A, E, or F is chosen it must be required that one of the trenches be in the slope below the archeology site.

Concerns about resultant soil erosion, types of retaining walls needed if the slope is cut into, and so forth, must be taken care of by engineers, soil scientists, and other specialists. In this paper we can only address the archeology issues. And the crux of that is that, again unless Alternative F is considered viable and is chosen, the site's informational integrity must be maintained or properly salvaged.

The definition of where a site begins and ends is sometimes a difficult subjective judgement: any reasonable boundary-drawing most likely will exclude at least one or two sherds, flakes, etc. But in this case, a reasonable arbitrary boundary that effectively contains virtually all the site's information value, while not unduly hampering other proposed projects is as follows: make an east-west line 10 meters (33 feet) south of the datum point (the highest point on the large boulder in the central part of the site) and terminate it 25 meters (82.5 feet) west of datum and 40 meters (132 feet) east of datum, going north into the cliff from these points.

As long as the integrity of this bounded area is preserved, proposed projects can be considered having "no effect" upon the archeological site. It must be left up to other specialists to design road cuts, etc. to maintain this integrity.

RECOMMENDATIONS

From a purely archeological standpoint Alternatives A and E are the most acceptable. Alternative A would preserve the data for future excavators with better techniques. Alternative E would provide some very essential information we need now to better understand the Fremont culture and better assess the significance of the other sites known and to be discovered in the area. However, because of financial, administrative, and time constraints these two alternatives are probably not very acceptable in a general sense.

Alternative B and C are the next most acceptable, with C taking priority. Alternative D is the one most recently proposed by Genwall Coal Company and is archeologically acceptable as long as soil stability tests indicate there will be no danger to the site.

Alternative F is simply not acceptable within the framework of our Agency responsibilities set out in laws and regulations. Acceptance of this alternative could lead us into serious lawsuits as well as possibly allowing great loss of scientific information.

In summary, the preferred archeological rankings of the alternatives are first A, down through E, C, B, D and ending with F.

If alternative B, C, or D is chosen, certain basic requirements for the fence must be met. The fence must not intrude into the site area as defined earlier in this section and as shown on the site map attached. The fence must be of chain link material, properly installed, at least six feet high above ground level at the point of installation, and have a locking gate with a Forest Service lock. The fence must be painted with an outdoor paint that blends well with the surrounding ground and vegetation, so as to not detract from the natural surroundings and not be easily visible from the road. At least two metal antiquity signs must be posted, each slightly inside the fence line, easily visible from outside the fence but not the road. In addition, a small engraved wooden sign very briefly describing the reasons for the protection of the site and the site's nature must be posted slightly inside the fence line and near the center of the longer axis.

It will probably be noticed that the recommendations found in this report are basically the same as those in the two earlier reports, only some more detail and discussion of alternatives being added.

LES WIKLE
Monticello District Archeologist

REFERENCES

- Gillio, David
1975 "Archeological Survey of Crandall Canyon Mine Road". Letter to the Forest Supervisor, Manti-LaSal National Forest. September 5, 1975
- Holmer, Richard
1979 "A Mathematical Typology for Archaic Projectile Points of the Eastern Great Basin". Phd Dissertation, Department of Anthropology, University of Utah.
- Howell, Wayne
1980 "Archeological Reconnaissance in the Crandall Canyon Vicinity, Emery County, Utah". A survey report of Utah Archaeological Research Corporation, Provo.
- Madsen, David and LaMar Lindsay
1977 "Backhoe Village". Antiquities Section Selected Papers, Number 12. Utah State Historical Society.

TABLE I

Altern- atives	Approximate Cost above Present Plan	Effect on Site	Viability	Procedures Necessary	Procedures Completed
A	Several \$10,000's	No Effect	Arch: Excellent Eng: Poor Other: Fair	SHPO Concurrence	
B	\$10,000 + (?) Road building, Fence, Administration	No Effect	Arch: Good Eng: Fair Other: Poor	SHPO Concurrence Build Fence	SHPO Concurrence
C	\$1,000-2,000 (Fence) \$500-800 (Administration)	No Effect	Arch: Good Eng: Good Other: Good	SHPO Concurrence Build Fence	SHPO Concurrence
D	\$1,000-2,000 (Fence) \$500-800 (Administration)	No Effect	Arch: Fair Eng: Good Other: Fair	SHPO Concurrence Build Fence	SHPO Concurrence
E	\$5,000-10,000 (Bidding Range) \$1,500-2,500 (Administration)	No Adverse Effect	Arch: Excellent Eng: Excellent Other: Excellent	SHPO Concurrence National Register Eligi- bility, Advisory Council concurrence. Contract, bidding, etc. Excavation permit. Supervise Excavation + Report	
F		Adverse Effect	Arch: Not Acceptable Eng: Excellent Other: Excellent	SHPO Concurrence (would not be given) or prepare for legal action	

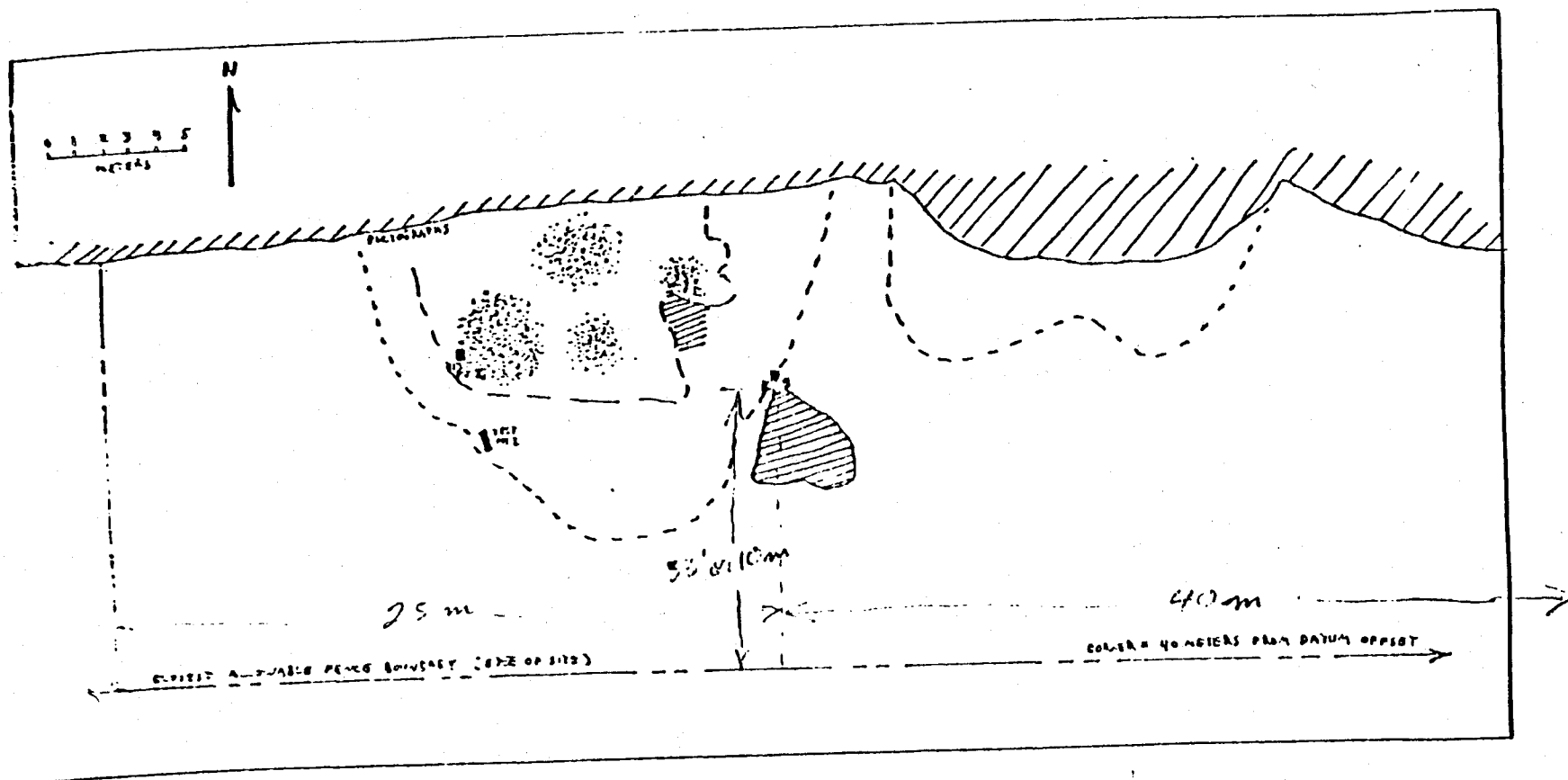


Fig. 2
SITE GEOGRAPHY

- + datum point (highest tip of boulder)
- potholes
- edge of general disturbance area
- test pits
- overhang limits (approximate)
- hatched cliff, boulder, exposed rock
- ! site boundary (closest allowable limit of fence)

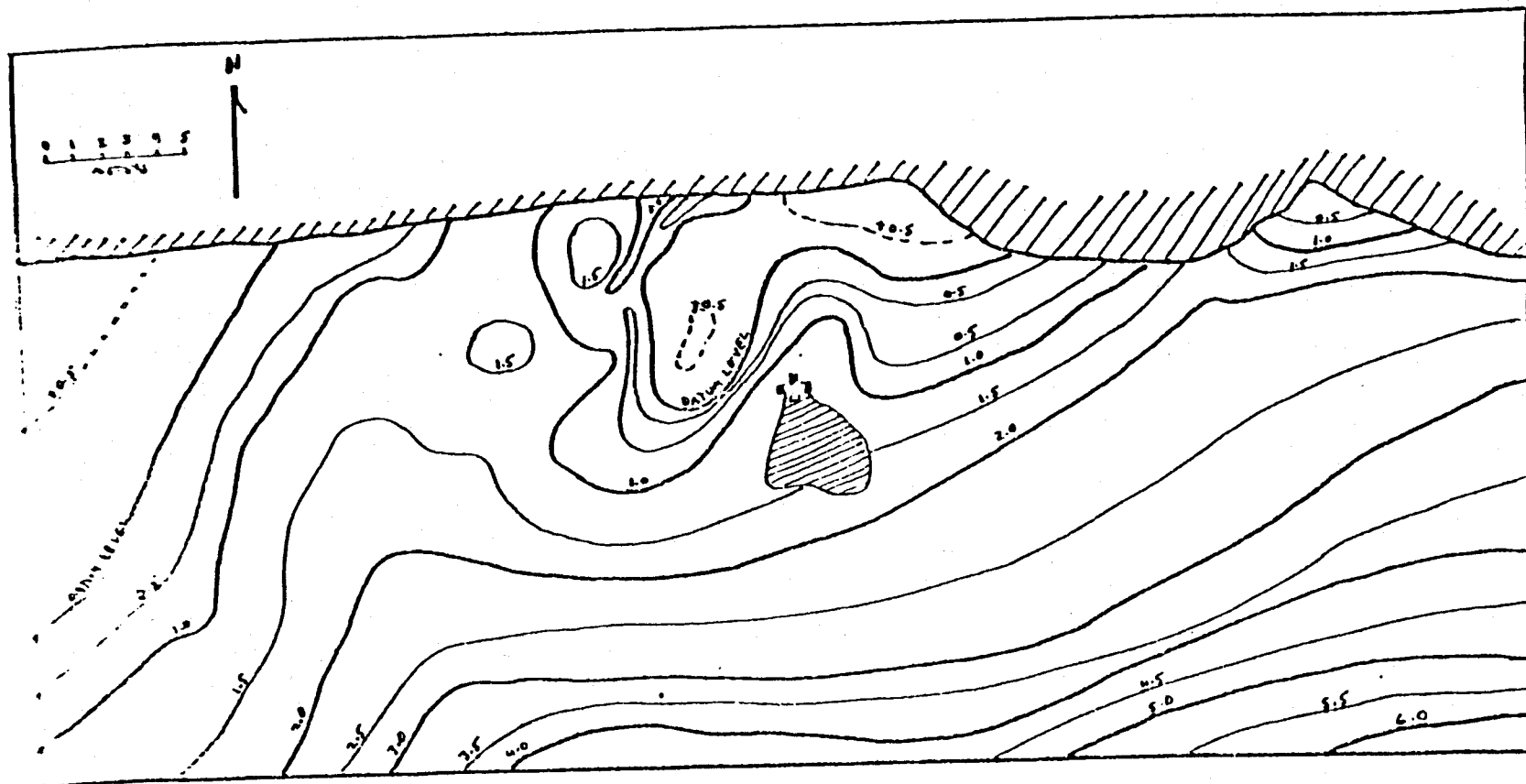
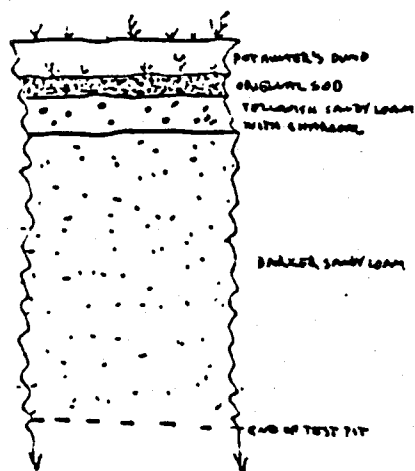


Fig. 3
SITE CONTOURS (approximate)

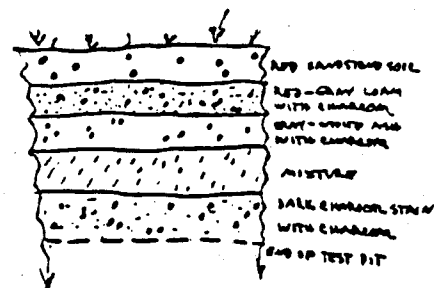
+ datum point (highest tip of boulder)

cliff, boulder

Contour intervals are each 0.5 meter, measured from datum point (approximately). Solid lines denote elevations below datum level, dashed lines denote elevations above datum level.



TEST PIT I
VIEW: 20 DEGREES



TEST PIT II
VIEW: 90 DEGREES

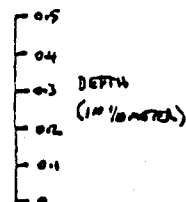


Fig. 4
TEST PIT STATIGRAPHY

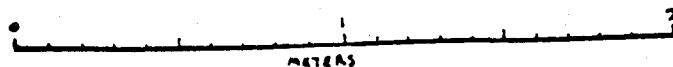


Fig. 5
CLIFF FACE PICTOGRAPHS

Pictographs are done in red paint material. Several others, very washed away by natural causes, are not shown here. Pictographs are located on the cliff face on the west side of the polluted area.

U.S. DEPARTMENT OF AGRICULTURE		SPEED-MEMO		PART NUMBER		DATE	
TO: WALT NEWARK AND R. IRA HATCH		1				14 JAN 81	
FROM: LES WIKLE MONTICELLO R.D.		SUBJECT		CRAWFALL CANYON ROAD			
PRICE R.D.							

MESSAGE (WRITE CONCISE MESSAGE. SIGN AND FORWARD PARTS 1 AND 2 TO ADDRESSEE. RETAIN PART 3)

HERE IS MY VERSION OF AN ARCHEOLOGICAL REPORT FOR THE PROJECT. HOPEFULLY IT IS SPECIFIC ENOUGH FOR YOU TO USE AS INFO FOR YOUR ETR. IF YOU HAVE ANY PROBLEMS WITH IT OR FURTHER SUGGESTIONS, GIVE ME A CA

IMPORTANT: OUR COPY MACHINE IS AWFUL, SO I'M SENDING YOU THE ORIGINAL MAPS, ETC. (FIGURES 1 THRU 5). PLEASE COPY THEM TO ATTACH TO YOUR COPY OF THE TEXT, AND SEND TO ORIGINALS BACK TO ME! (IF YOU COULD) INCLUDE A COPY OR TWO OF EACH OF THE PAGES WITH FIGURES 1-5 FOR ME TO USE FOR SEND THE REPORT TO SHPO, ETC. I WOULD APPRECIATE IT. BUT IF YOU CAN IT'S O.K.)

SIGNATURE

REPLY (USE THIS SPACE FOR REPLY SIGN AND DATE. RETURN PART 2 TO SENDER. RETAIN PART 1)

Thank you very much for your excellent report. At the present time it meets or exceeds all of our requirements. We'll be in contact if we have any further questions in this matter. Enclosed or attached are two copies of the report.

Thanks again,

FOREST SERVICE SOUTHWESTERN NATIONAL FOREST PRICE R.D.		
JAN 15 1981		
ACTION	TO	INFO.
	BY	
	CLERK	
PROMISE CARD FOR		

SIGNATURE

Walter E. Housh

DATE

1/19/80